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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,156	04/10/2007	Christopher James Newton Fryer	1788.004.US	1688
85582 7590 08/16/2010 Multi-Fineline Electronix, Inc. c/o Keating & Bennett, LLP 1800 Alexander Bell Drive Suite 200 Reston, VA 20191				
EXAMINER				
FRY, MATTHEW A				
ART UNIT		PAPER NUMBER		
2629				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/598,156

Applicant(s)

FRYER ET AL.

Examiner

MATTHEW A. FRY

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/27/10 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 7/1/10 and 7/21/10.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application.
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7 and 13 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

2. The information disclosure statement filed 7/1/10 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because no English translation or Abstract has been provided for JP 44000483 or JP 622420. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

3. Information disclosure statement filed 7/1/10 lists WO 03/004014 and US 2006/0052357. These references do not appear to be relevant to the current application. The Examiner would request the Applicant confirm that these reference numbers are correct.

Claim Objections

4. Claims 3 and 4 are objected to because of the following informalities: claims 3 and 4 recite the limitation, "the the" which is improper sentence structure. Appropriate correction is required.
5. Claims 5 and 13 recite the limitation "the signal" which lacks antecedent basis in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 1 and 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Claims 1 and 15-16 recite the limitation "the frontmost electrode defining both a display electrode" and a "sensing electrode." It is unclear what is intended by this limitation. For example, it is unclear if the frontmost electrode functions as a display electrode and a sensing electrode, or if it actually comprises 2 electrodes.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 3, and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Herbert (US 5,777,596).

11. In regards to claim 1, Herbert discloses a display comprising: a capacitance sensor (34), arranged to detect a presence of a user, and including: a first electrode (16) defined by a frontmost electrode of the display, the frontmost electrode defining both a display electrode arranged to activate the display and a sensing electrode of the capacitance sensor to detect the presence of the user; and a second electrode (18) defined by one of a case of the display and a power terminal (ground) of a circuit arranged to drive or control the display (see figure 5 and 6; abstract; Col 2, lines 31-56; Col 4, lines 6-23; Col 5, lines 32-38).

12. In regards to claim 3, Herbert discloses a display according to claim 1, in which the the capacitance sensor further includes electronics (38) arranged to measure the capacitance between the first electrode and the second electrode and to output a signal based upon the measurement of the capacitance (see figure 5 and 6; abstract; Col 2, lines 31-56; Col 4, lines 6-23; Col 5, lines 32-38).

13. In regards to claim 5, Herbert discloses a display according to claim 3, further comprising circuitry (36) arranged to activate the display based upon the signal (see figures 5 and 6).

14. In regards to claim 6, Herbert discloses a display according to claim 1, in which the power terminal is a ground terminal (see figure 6).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 2, 4, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert (US 5,777,596) in view of Nakazono et al (JP9251820).

17. In regards to claim 2, Herbert discloses a display according to claim 1, but does not explicitly teach an EL display.

Nakazono teaches a display comprising an electroluminescent display capable of detecting a touch (abstract).

It would have been obvious to one of ordinary skill in the art to modify Herbert with Nakazono as EL displays are well known in the art. Further, both inventions are in the same field of endeavor, providing a touch screen where both the display and sensor share electrodes, and both an LC display and an EL display function in similar capacitive manners.

18. In regards to claim 4, Herbert as modified discloses a display according to claim 2, in which the the first electrode is arranged to activate light- emitting areas of the electroluminescent display (see Nakazono abstract).

19. In regards to claim 13, Herbert discloses a display comprising: a capacitance sensor (34) including: a first electrode (16) defined by a frontmost electrode of the display and arranged to activate areas of the display; a second electrode (18) defined

by one of a case of the electroluminescent display and a power terminal (ground) of a circuit arranged to drive and control the display; electronics (38) arranged to: measure the capacitance between the first electrode and the second electrode; process the signal and determine a presence of a user; provide a signal based upon the determination of the presence of a user; and activate the display based upon the signal (Col 9, lines 14-32) (see figure 5 and 6; abstract; Col 2, lines 31-56; Col 4, lines 6-23; Col 5, lines 32-38). Herbert does not explicitly disclose and EL display.

Nakazono teaches a display comprising an electroluminescent display capable of detecting a touch (abstract).

It would have been obvious to one of ordinary skill in the art to modify Herbert with Nakazono as EL displays are well known in the art. Further, both inventions are in the same field of endeavor, providing a touch screen where both the display and sensor share electrodes, and both an LC display and an EL display function in similar capacitive manners.

20. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert (US 5,777,596) in view of Morimura et al (US 6,714,666).

21. In regards to claim 14, Herbert discloses a display comprising: a capacitance sensor (34) arranged to detect a presence of a user and including a first electrode (16) defined by a front electrode of the display (see figure 5 and 6; abstract; Col 2, lines 31-56; Col 4, lines 6-23; Col 5, lines 32-38). Herbert does not explicitly disclose a protection member.

Morimura discloses a touch sensor comprising a protection member (Q4) arranged to protect the capacitance sensor (220) from an excessive voltage on the front electrode and including: a first end connected to the front electrode (105); and a second end connected to at least one circuit element of the capacitance sensor (220) (see figure 4; Col 6, lines 19-30, 35-43; Col 7, line 60- Col 8, line 17).

It would have been obvious to one of ordinary skill in the art to modify Herbert with Morimura as they are both in the same field of endeavor (capacitive touch sensors) and the use of a protection member, or diode, in a capacitive touch sensor is well known in the art and would have been an obvious design choice.

22. In regards to claim 15, Herbert as modified discloses a display according to claim 14, wherein: the capacitance sensor further includes a second electrode (18, part of C1) defined by one of a case of the display and a power terminal (ground) of a circuit arranged to drive or control the display; and the front electrode defines both a display electrode arranged to activate the display and a sensing electrode of the capacitance sensor to detect the presence of the user (see Herbert figure 4; Col 6, lines 19-30, 35-43; Col 7, line 60- Col 8, line 17).

23. In regards to claim 16, Herbert as modified discloses a display according to Claim 14, wherein the front electrode defines both a display electrode arranged to activate the display and a sensing electrode of the capacitance sensor to detect the presence of the user (see Herbert figure 4; Col 6, lines 19-30, 35-43; Col 7, line 60- Col 8, line 17).

24. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert (US 5,777,596) in view of Nakazono et al (JP9251820) and further in view of Morimura et al (US 6,714,666).

25. In regards to claim 7, Herbert as modified discloses a display according to claim 5, but does not explicitly disclose a diode.

Morimura teaches a capacitive touch sensor in which a diode is arranged to protect either the capacitance sensor or the circuitry arranged to activate the display (see figure 4; Col 6, lines 19-30, 35-43; Col 7, line 60- Col 8, line 17).

It would have been obvious to one of ordinary skill in the art to modify Herbert with Morimura as they are both in the same field of endeavor (capacitive touch sensors) and the use of a protection member, or diode, in a capacitive touch sensor is well known in the art and would have been an obvious design choice.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW A. FRY whose telephone number is (571) 270-7355. The examiner can normally be reached on Monday thru Friday, 8:00 AM to 5:00 PM, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bipin Shalwala/
Supervisory Patent Examiner, Art Unit 2629

Application/Control Number: 10/598,156

Page 10

Art Unit: 2629

/MATTHEW A FRY/

Examiner, Art Unit 2629